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ABSTRACT

The present study was designed to assess the effects of a combination of feedback and personal consultations using college student evaluations on faculty performance. Student evaluation feedback and personal consultations were conducted at least a semester before any follow-up data was gathered. The results indicate that providing computerized results of college student evaluations along with individual faculty consulting sessions helped the instructors significantly improve their student ratings on two instructional dimensions. (Author)

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Research Report

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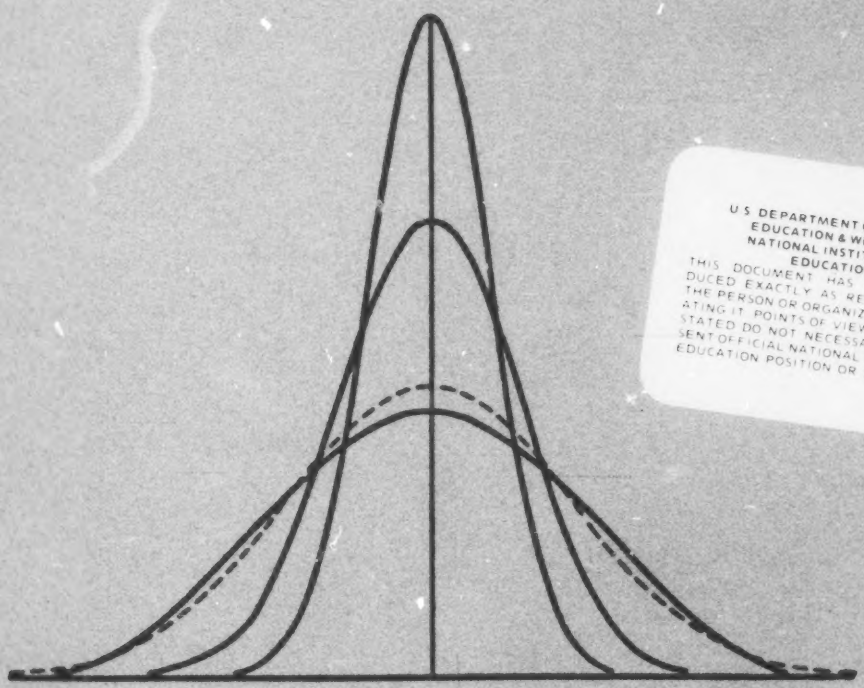

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Abstract

The present study was designed to assess the effects of a combination of feedback and personal consultations using college student evaluations on faculty performance. Student evaluation feedback and personal consultations were conducted at least a semester before any follow-up data was gathered. The results indicate that providing computerized results of college student evaluations along with individual faculty consulting sessions helped the instructors significantly improve their student ratings on two instructional dimensions.

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THE USEFULNESS OF STUDENT EVALUATIONS IN IMPROVING COLLEGE TEACHING

Lawrence M. Aleamoni[1]

In the past few years, as a result of the 1970 student strikes and the emphasis on accountability, course and instructor evaluation has been placed in the spotlight. In an attempt to build a total instructional evaluation system, a great deal of emphasis has been placed on student evaluations of course and instructor and the fact that such evaluations must be both reliable and valid to be considered an integral part of a total instructional evaluation system. Costin, Greenough, and Menges (1971) after extensive reviews of existing instruments concluded that student opinions do affect learning and provide a source of quite reliable and valid data relative to the effectiveness of instruction. A question that naturally arises in developing such evaluation systems is "Can student evaluations of instruction and instructor be useful in improving college teaching once they are made available to the instructor?"

Although there has been a great deal of anecdotal evidence from instructors and researchers to suggest that student evaluations do have a positive effect, very few studies are available that deal with that effect on college level instruction. In two fairly recent studies by Miller (1971) and Centra (1973) student evaluations gathered at midsemester and presented to the participating instructors as feedback were compared to the end-of-semester ratings. Miller's study employed one college's graduate student teaching assistants whereas Centra's study employed five different small colleges' teaching faculty.

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In both studies no significant differences were found between the midsemester and end-of-semester student ratings of instruction.

A more recent study by Braunstein, Klein, and Pachla (1973) attempted to assess the effects of college student evaluations on faculty performance by providing feedback midway through the semester at one college. A comparison of the shift in median student ratings between the midsemester and end-of-semester (seven to eight weeks later) indicated significantly greater increments for the experimental feedback group. This study appears to be the only one available yielding positive effects of student evaluation feedback at the college level. The authors do, however, point out that the data used should be viewed with caution because the measures used were in the form of shifts in the class medians of one scale point or more.

Of the various systems developed for student evaluation of course and instructor, the Illinois Course Evaluation Questionnaire (CEQ) has perhaps the most extensive reliability, validity, and norm base data for support. Normative data have been collected continuously since 1966 by the Measurement and Research Division of the Office of Instructional Resources at the University of Illinois, Urbana-Champaign campus. The CEQ is used to collect student attitudes toward a course and instructor, and its purpose is to enable faculty members to collect evaluative information about their teaching. As the number of measures on each course is increased, it becomes possible to obtain a relatively stable indication of the difference between courses. This aids in the interpretation of the actual differences between an obtained section score for a particular instructor and the average scores for all the sections represented in that course.

The analysis of item inter-relationships and the subscore inter-relationships indicated that no one element, related to a course, disproportionately influenced the students' evaluation of the course (Aleamoni & Spencer, 1973). However, it appears that there also is a "general course attitude" cultivated by the student as he is exposed to previous students' comments, the instructor, the textbook, the course, etc., and this is the framework from which he responds when answering the CEQ items.

It would seem on the basis of three validity studies (Stallings & Spencer, 1967; Swanson & Sisson, 1971; and Aleamoni & Yimer, 1973), the face validity of the CEQ, and its high reliability, that extremely low scores on a particular subscore do indicate problem areas in an instructor's teaching program, whereas, stable high scores point to an effective instructional program as viewed by students. All available validating evidence to date (both published and unpublished studies), indicates that the CEQ does indeed identify courses that are considered to be excellent or poor.

After using the CEQ, the instructor receives results (see Appendix A) which allow him to compare his course item means to institutional course item means (via deciles) and to compare his course subscale means to norm subscale means categorized by; (a) rank of instructor, (b) level of course, (c) institution, (d) college, and (e) all institutions that have used the CEQ throughout the United States. The subscale results allow the instructor to obtain an indication of major areas of strengths and weaknesses in the course. Once the areas of weakness have been identified by the subscales, then looking at the item results helps to focus on the more specific problem areas. The CEQ items are not completely diagnostic but do serve to elicit diagnostic responses from the instructor teaching the course. It provides

s means whereby some self-evaluation of the teaching process can occur; other means can be arranged and are available such as asking more diagnostic questions in the optional item section available on the CEQ forms, (see Appendix B) or having peers sit in on actual class sessions, etc.

The Optional Item Catalog (Aleamoni & Brandenburg, 1973) was generated in order to provide instructors with items that may be more relevant or diagnostic for their particular courses.

After the instructor has decided to use the CEQ and/or any optional items of his choice, it is then up to him to decide what to do with the data. If he feels that the interpretation manual (Aleamoni, 1972) and abbreviated interpretation sheets are not sufficient to help him identify areas that may need improvement in the course, he can then arrange for a conference with one of the members of the Measurement and Research Division staff.

It has been through a process such as this that instructors have been able to use student evaluations to identify instructional problems and then rectify them. Obviously, the success or failure of such a venture rests solely with the instructor and his willingness to both gather and use the data provided him.

Since the author has been involved in utilizing student evaluations to help instructors identify and diagnose instructional problems, the data was available to conduct a study on the effects of feedback in the following year. The present study, therefore, provides data beyond midsemester to end-of-semester comparisons and also looks at the effect of feedback consultations.

Method

Description of Subjects

Instructors at two different institutions (University of Arizona at Tucson and Sheridan College at Sheridan, Wyoming) who had used the CEQ during the fall 1971 and spring 1972 terms for their courses were the subjects of the present study. The experimental group consisted of 20 instructors teaching 34 courses at the University of Arizona and 12 instructors teaching 16 courses at Sheridan College. The control group consisted of 13 instructors teaching 18 courses at the University of Arizona and 2 instructors teaching 2 courses at Sheridan College. There were 2,980 students in the experimental group of 50 courses and 874 students in the 20 control group courses.

Each of these instructors was scheduled to talk with the author about his/her results. The conferences were conducted individually at the home campus of the instructor and took approximately 15 to 20 minutes. The conference began with a close scrutiny of the CEQ subscale results to see if any problems existed based on the norm data available. If a problem area was identified (such as Method of Instruction) then a close look at the items making up that subscale would be in order. If in the discussion with the instructor the source of difficulty was identified, then the discussion shifted to possible ways of trying to resolve the difficulty. If, on the other hand, the source of difficulty was not identified using the existing items and the instructor's recall, then other procedures (such as the use of optional items, classroom visitation, video-taping, etc.) were explored to be able to identify the specific problem.

In assessing the usefulness of student evaluations in improving college teaching, each instructor who had participated in the individual conferences

was subsequently followed up to see if any significant change had occurred in their student ratings in subsequent terms (fall 1972) in the same course(s).

Since a majority of the instructors in the experimental group had decile ratings below eight or nine (the criterion used to determine problem areas) on the Instructor subscale and possibly one or more of the other four subscales of the CEQ, only those instructors with decile ratings of zero through seven on the Instructor subscale were used to make up the experimental group of the present study.

Instructors who were unable to participate in the individual conferences due to class conflicts or previous commitments were used to make up the control group. These instructors had used the CEQ at the same time as the experimental group. It should be emphasized that these instructors were all planning to participate in the individual conferences and personally expressed their disappointment to the auchor and their department head in not being able to meet on the scheduled days.

All CEQ data was gathered at or near the end of each semester.

A two-way repeated measures analysis of variance (ANOVA) design was used to analyze the data.

Results

Means, standard deviations, class sizes, and norm deciles were obtained for each of the above instructors on five of the CEQ subscales as well as the Total and are presented in Table 1. The data on the five subscales was then analyzed to determine if the conferences had any significant effect on helping the instructor improve his/her teaching as reflected in subsequent student evaluations measured by the subscales of the CEQ.

Table 1

Means, Standard Deviations, Sample Sizes, and
Norm Deciles for CEQ Subscales

Institution Instructor	Experimental Control	Pre Post	N	Data Type	CEQ Subscales					
					General Course Attitude	Method of Instruction	Course Content	Interest Attention	Instructor	Total
Arizona 1	Experimental	Pre	20	Mean	2.95	2.59	2.92	2.64	2.94	2.81
				S.D.	.79	.81	.73	.85	.72	.79
				Norm Decile	3	2	5	3	2	3
		Post	18	Mean	3.49	3.25	3.22	3.11	3.33	3.25
				S.D.	.39	.37	.36	.61	.41	.38
				Norm Decile	8	8	9	7	7	8
Arizona 2	Experimental	Pre	26	Mean	3.01	2.25	2.88	2.46	3.13	2.76
				S.D.	.90	.91	.86	.96	.86	.92
				Norm Decile	3	0	5	1	4	2
		Post	19	Mean	3.51	3.08	3.25	2.84	3.47	3.23
				S.D.	.40	.55	.39	.53	.35	.37
				Norm Decile	8	7	9	5	8	8
Arizona 3	Experimental	Pre	28	Mean	3.55	3.43	3.27	3.33	3.29	3.31
				S.D.	.53	.62	.66	.67	.71	.69
				Norm Decile	9	9	9	9	6	9
		Post	32	Mean	3.63	3.45	3.42	3.31	3.48	3.44
				S.D.	.61	.51	.55	.63	.36	.45
				Norm Decile	9	9	9	9	8	9
Arizona	Experimental	Pre	26	Mean	3.45	3.14	3.15	3.28	3.21	3.20
				S.D.	.61	.56	.65	.58	.63	.65
				Norm Decile	8	8	8	8	5	8
		Post	33	Mean	3.50	3.40	3.35	3.28	3.49	3.41
				S.D.	.47	.51	.39	.51	.36	.39
				Norm Decile	8	9	9	8	8	9

Table 1 (cont.)

Institution Instructor	Experimental Control	Pre Post	N	Data Type	CEQ Subscales: General Course Attitude	Method of Instruction	Course Content	Interest Attention	Instructor	Total
Arizona 5	Experimental	Pre	38	Mean	3.45	3.23	3.13	3.25	3.33	3.23
				S.D.	.53	.55	.54	.56	.59	.57
				Norm Decile	8	8	8	8	7	8
		Post	40	Mean	3.58	3.34	3.41	3.23	3.41	3.37
				S.D.	.52	.55	.53	.62	.48	.48
				Norm Decile	9	9	9	8	8	9
Arizona 6	Experimental	Pre	22	Mean	3.45	3.15	3.19	3.30	3.20	3.22
				S.D.	.52	.63	.57	.52	.59	.59
				Norm Decile	8	8	8	8	5	8
		Post	20	Mean	3.72	3.44	3.36	3.53	3.43	3.44
				S.D.	.55	.65	.68	.59	.68	.68
				Norm Decile	9	9	9	9	8	9
Arizona 7	Experimental	Pre	19	Mean	3.28	3.00	3.04	2.96	3.37	3.11
				S.D.	.52	.69	.61	.72	.63	.66
				Norm Decile	7	6	7	6	7	7
		Post	10	Mean	3.42	3.07	3.40	2.77	3.56	3.24
				S.D.	.51	.57	.38	.53	.40	.40
				Norm Decile	8	7	9	4	9	8
Arizona 8	Experimental	Pre	72	Mean	2.46	2.76	2.69	2.31	3.29	2.72
				S.D.	.96	.77	.81	.86	.63	.87
				Norm Decile	0	4	2	1	6	2
		Post	80	Mean	3.02	2.97	2.95	2.72	3.44	3.03
				S.D.	.83	.68	.68	.82	.61	.74
				Norm Decile	4	6	6	4	8	6
Arizona 9	Experimental	Pre	13	Mean	3.19	3.01	2.90	2.81	3.29	3.03
				S.D.	.48	.51	.59	.71	.63	.61
				Norm Decile	6	7	5	5	6	5
		Post	11	Mean	3.50	3.20	3.25	3.18	3.49	3.33
				S.D.	.42	.47	.39	.42	.37	.34
				Norm Decile	8	8	9	8	8	8

Table 1 (cont.)

Institution Instructor	Experimental Control	Pre Post	N	Data Type	CEQ Subscales					
					General Course Attitude	Method of Instruction	Course Content	Interest Attention	Instructor	Total
Arizona 10	Experimental	Pre	14	Mean	3.13	2.95	3.00	2.95	3.22	3.03
				S.D.	.47	.64	.56	.68	.51	.56
				Norm Decile	5	6	6	6	5	6
		Post	18	Mean	3.22	2.93	3.03	2.83	3.27	3.07
				S.D.	.48	.21	.34	.40	.28	.26
				Norm Decile	6	6	7	5	6	6
Arizona 11	Experimental	Pre	49	Mean	3.33	3.05	2.96	3.00	3.32	3.10
				S.D.	.60	.68	.66	.64	.66	.65
				Norm Decile	7	7	6	6	7	7
		Post	47	Mean	3.37	3.15	3.12	3.09	3.37	3.21
				S.D.	.51	.47	.52	.56	.42	.45
				Norm Decile	7	8	8	7	7	8
Arizona 12	Experimental	Pre	27	Mean	3.34	2.91	2.95	3.23	3.40	3.11
				S.D.	.66	.85	.82	.65	.65	.77
				Norm Decile	7	6	6	8	8	7
		Post	10	Mean	3.60	3.45	3.10	3.30	3.45	3.39
				S.D.	.39	.37	.32	.39	.51	.33
				Norm Decile	9	9	8	8	8	9
Arizona 13	Experimental	Pre	13	Mean	3.53	3.28	3.21	3.36	3.54	3.35
				S.D.	.54	.69	.66	.70	.67	.66
				Norm Decile	8	8	9	9	9	9
		Post	10	Mean	3.58	3.17	3.45	3.13	3.75	3.40
				S.D.	.26	.29	.31	.24	.23	.20
				Norm Decile	9	8	9	7	9	9
Arizona 14	Experimental	Pre	8	Mean	3.27	2.82	2.83	3.19	3.22	3.01
				S.D.	.68	.47	.77	.58	.65	.68
				Norm Decile	6	5	4	8	5	6
		Post	7	Mean	2.89	2.64	2.74	2.54	2.91	2.75
				S.D.	.69	1.05	.66	1.00	.79	.80
				Norm Decile	2	3	3	2	1	2

Table 1 (cont.)

Institution Instructor	Experimental Control	Pre Post	N	Data Type	CEQ Subscales: General Course Attitude	Method of Instruction	Course Content	Interest Attention	Instructor	Total
Arizona 15	Experimental	Pre	22	Mean	3.29	3.03	3.07	2.88	3.20	3.04
				S.D.	.58	.60	.46	.58	.37	.48
				Norm Decile	7	7	7	5	5	6
		Post	28	Mean	3.45	3.31	3.24	3.07	3.51	3.30
				S.D.	.57	.47	.46	.54	.38	.42
				Norm Decile	8	8	9	7	8	8
Arizona 16	Experimental	Pre	24	Mean	3.52	3.10	3.11	3.20	3.41	3.24
				S.D.	.61	.63	.58	.64	.64	.64
				Norm Decile	8	7	8	8	8	8
		Post	34	Mean	3.40	3.08	2.98	3.11	3.32	3.12
				S.D.	.51	.52	.63	.54	.60	.62
				Norm Decile	8	7	6	7	7	7
Arizona 17	Experimental	Pre	56	Mean	2.86	2.66	2.81	2.63	3.00	2.80
				S.D.	.79	.73	.68	.79	.66	.73
				Norm Decile	2	3	4	3	2	3
		Post	50	Mean	2.95	2.90	2.90	2.70	3.20	2.93
				S.D.	.68	.58	.50	.62	.51	.51
				Norm Decile	3	5	5	4	5	4
Arizona 18	Experimental	Pre	24	Mean	3.17	2.50	2.69	2.71	3.11	2.83
				S.D.	.64	.72	.85	.69	.91	.83
				Norm Decile	5	2	2	4	4	3
		Post	20	Mean	3.38	2.92	3.00	2.89	3.48	3.15
				S.D.	.47	.78	.45	.52	.54	.44
				Norm Decile	8	6	6	5	8	7
Arizona 19	Experimental	Pre	35	Mean	3.33	2.76	2.94	3.09	3.01	2.99
				S.D.	.63	.65	.76	.67	.79	.75
				Norm Decile	7	4	5	7	3	5
		Post	31	Mean	2.94	2.39	2.79	2.60	2.78	2.66
				S.D.	.69	.84	.58	.69	.54	.61
				Norm Decile	3	1	3	3	0	1

Table 1 (cont.)

Institution Instructor	Experimental Control	Pre Post	N	Data Type	CEQ Subscales					
					General Course Attitude	Method of Instruction	Course Content	Interest Attention	Instructor	Total
Arizona 20	Experimental	Pre	35	Mean	3.46	3.23	3.20	3.21	3.39	3.27
				S.D.	.53	.51	.62	.69	.60	.62
				Norm Decile	8	8	8	8	7	8
		Post	38	Mean	3.51	3.31	3.30	3.11	3.47	3.33
				S.D.	.40	.38	.38	.43	.35	.33
				Norm Decile	8	8	9	7	8	9
Arizona 21	Experimental	Pre	79	Mean	3.30	3.03	3.16	3.00	3.30	3.13
				S.D.	.70	.70	.63	.79	.60	.70
				Norm Decile	7	7	8	6	7	7
		Post	111	Mean	3.46	3.25	3.32	3.10	3.50	3.33
				S.D.	.59	.58	.44	.63	.40	.45
				Norm Decile	8	8	9	7	8	9
Arizona 22	Experimental	Pre	13	Mean	3.72	3.16	3.16	3.42	3.34	3.31
				S.D.	.45	.66	.65	.57	.63	.63
				Norm Decile	9	8	8	9	7	9
		Post	23	Mean	3.48	3.26	3.18	3.19	3.38	3.30
				S.D.	.48	.51	.45	.54	.34	.39
				Norm Decile	8	8	8	8	7	8
Arizona 23	Experimental	Pre	11	Mean	3.14	2.39	2.80	2.58	2.89	2.77
				S.D.	.66	.63	.79	.72	.69	.72
				Norm Decile	5	1	3	2	1	2
		Post	24	Mean	2.45	2.18	2.56	2.10	2.63	2.37
				S.D.	.84	.81	.48	.80	.68	.66
				Norm Decile	0	0	1	0	0	0
Arizona 24	Experimental	Pre	67	Mean	3.53	3.14	3.17	3.29	3.35	3.25
				S.D.	.56	.57	.60	.63	.59	.62
				Norm Decile	8	8	8	8	7	8
		Post	75	Mean	3.46	2.99	3.10	3.21	3.23	3.14
				S.D.	.59	.69	.67	.64	.66	.70
				Norm Decile	8	6	8	8	5	7

Table 1 (cont.)

Institution Instructor	Experimental Control	Pre Post	N	Data Type	CEQ Subscales					
					General Course Attitude	Method of Instruction	Course Content	Interest Attention	Instructor	Total
Arizona 25	Experimental	Pre	25	Mean	3.44	3.31	3.26	3.24	3.43	3.29
				S.D.	.56	.59	.62	.57	.62	.63
				Norm Decile	8	8	9	8	8	8
		Post	23	Mean	3.68	3.59	3.58	3.52	3.55	3.57
				S.D.	.39	.37	.43	.42	.40	.34
				Norm Decile	9	9	9	9	9	9
Arizona 26	Experimental	Pre	45	Mean	3.75	3.40	3.48	3.50	3.50	3.47
				S.D.	.43	.60	.63	.60	.60	.62
				Norm Decile	9	9	9	9	8	9
		Post	72	Mean	3.82	3.56	3.59	3.57	3.56	3.60
				S.D.	.29	.42	.35	.42	.31	.28
				Norm Decile	9	9	9	9	9	9
Arizona 27	Experimental	Pre	43	Mean	3.62	3.42	3.29	3.34	3.50	3.40
				S.D.	.50	.55	.59	.60	.63	.60
				Norm Decile	9	9	9	9	8	9
		Post	64	Mean	3.55	3.29	3.25	3.15	3.44	3.35
				S.D.	.41	.51	.40	.51	.37	.37
				Norm Decile	9	8	9	8	8	9
Arizona 28	Experimental	Pre	9	Mean	3.50	3.27	3.16	3.13	3.39	3.28
				S.D.	.56	.68	.66	.75	.64	.67
				Norm Decile	8	8	8	7	7	8
		Post	10	Mean	3.38	2.85	3.13	2.88	3.34	3.13
				S.D.	.52	.73	.43	.46	.28	.42
				Norm Decile	8	5	8	5	7	7
Arizona 29	Experimental	Pre	48	Mean	3.49	3.15	3.21	3.27	3.46	3.27
				S.D.	.55	.69	.59	.63	.65	.66
				Norm Decile	8	8	8	8	8	8
		Post	47	Mean	3.23	2.98	3.02	3.07	3.46	3.15
				S.D.	.64	.58	.47	.63	.41	.50
				Norm Decile	6	6	7	7	8	7

Table 1 (cont.)

Institution Instructor	Experimental Control	Pre Post	N	Data Type	CEQ Subscales					
					General Course Attitude	Method of Instruction	Course Content	Interest Attention	Instructor	Total
Arizona 30	Experimental	Pre	11	Mean	3.94	3.77	3.74	3.71	3.84	3.75
				S.D.	.23	.50	.49	.57	.37	.50
				Norm Decile	9	9	9	9	9	9
		Post	19	Mean	3.48	2.81	3.91	3.03	3.41	3.16
				S.D.	.58	.75	.40	.58	.48	.45
				Norm Decile	8	5	6	7	8	7
Arizona 31	Experimental	Pre	185	Mean	3.40	3.22	3.10	3.10	3.45	3.23
				S.D.	.61	.68	.68	.72	.62	.67
				Norm Decile	8	8	8	7	8	8
		Post	211	Mean	3.41	3.15	3.11	2.93	3.32	3.18
				S.D.	.55	.64	.45	.53	.46	.46
				Norm Decile	8	8	8	6	7	8
Arizona 32	Experimental	Pre	15	Mean	3.58	3.36	3.37	3.39	3.63	3.42
				S.D.	.51	.56	.55	.52	.50	.56
				Norm Decile	9	9	9	9	9	9
		Post	23	Mean	3.27	3.16	3.16	3.00	3.46	3.22
				S.D.	.35	.37	.36	.41	.46	.33
				Norm Decile	7	8	8	6	8	8
Arizona 33	Experimental	Pre	10	Mean	3.32	3.22	2.97	3.03	3.27	3.16
				S.D.	.35	.36	.45	.54	.21	.32
				Norm Decile	7	8	6	7	6	7
		Post	33	Mean	3.17	2.95	2.91	2.76	3.24	3.00
				S.D.	.40	.42	.43	.41	.46	.35
				Norm Decile	5	6	5	4	6	5
Arizona 34	Experimental	Pre	69	Mean	3.34	3.01	3.02	3.06	3.34	3.12
				S.D.	.60	.71	.64	.70	.65	.67
				Norm Decile	7	6	7	7	7	7
		Post	63	Mean	3.38	3.14	3.06	2.97	3.44	3.19
				S.D.	.50	.53	.41	.54	.40	.42
				Norm Decile	8	7	7	6	8	8

Table 1 (cont.)

Institution Instructor	Experimental Control	Pre Post	N	Data Type	CEQ Subscales: General Course Attitude	Method of Instruction	Course Content	Interest Attention	Instructor	Total
Arizona 1	Control	Pre	44	Mean	3.06	2.48	2.93	2.62	2.74	2.80
				S.D.	.70	.78	.71	.84	.78	.78
				Norm Decile	4	2	5	3	0	3
		Post	55	Mean	3.02	2.62	3.00	2.64	2.64	2.76
				S.D.	.73	.76	.49	.74	.63	.59
				Norm Decile	4	3	6	3	0	2
Arizona 2	Control	Pre	42	Mean	3.31	2.78	2.98	2.92	2.83	2.97
				S.D.	.63	.71	.58	.76	.72	.69
				Norm Decile	7	4	6	6	1	5
		Post	50	Mean	3.49	3.16	3.27	3.14	3.10	3.20
				S.D.	.50	.57	.49	.60	.48	.46
				Norm Decile	8	8	9	8	4	8
Arizona 3	Control	Pre	17	Mean	3.29	2.98	3.02	2.99	3.23	3.08
				S.D.	.54	.68	.64	.68	.64	.64
				Norm Decile	7	6	7	6	5	6
		Post	18	Mean	3.26	3.04	2.99	3.03	3.15	3.07
				S.D.	.50	.58	.57	.56	.55	.57
				Norm Decile	6	7	6	7	4	6
Arizona 4	Control	Pre	29	Mean	3.27	2.91	3.05	2.98	3.18	3.06
				S.D.	.57	.63	.50	.63	.55	.59
				Norm Decile	6	6	7	6	5	6
		Post	30	Mean	3.10	2.77	2.99	2.85	3.11	2.96
				S.D.	.67	.71	.53	.65	.45	.53
				Norm Decile	5	4	6	5	4	5
Arizona 5	Control	Pre	18	Mean	3.55	3.07	3.09	3.20	3.43	3.24
				S.D.	.51	.56	.68	.60	.67	.64
				Norm Decile	9	7	7	8	8	8
		Post	9	Mean	3.56	3.44	3.33	3.11	3.58	3.43
				S.D.	.60	.41	.57	.69	.35	.41
				Norm Decile	9	9	9	7	9	9

Table 1 (cont.)

Institution Instructor	Experimental Control	Pre Post	N	Data Type	CEQ Subscales					
					General Course Attitude	Method of Instruction	Course Content	Interest Attention	Instructor	Total
Arizona 6	Control	Pre	7	Mean	3.82	3.45	3.32	3.64	3.63	3.47
				S.D.	.39	.69	.72	.52	.52	.65
				Norm Decile	9	9	9	9	9	9
		Post	11	Mean	3.20	2.95	3.07	3.12	3.52	3.20
				S.D.	.43	.48	.31	.34	.30	.29
				Norm Decile	6	6	7	7	8	8
Arizona 7	Control	Pre	49	Mean	3.25	2.93	2.91	2.91	3.28	3.06
				S.D.	.59	.61	.68	.73	.61	.65
				Norm Decile	6	6	5	6	6	6
		Post	35	Mean	3.40	3.08	3.19	2.96	3.41	3.22
				S.D.	.57	.60	.45	.64	.37	.45
				Norm Decile	8	7	8	6	8	8
Arizona 8	Control	Pre	37	Mean	3.40	3.05	3.14	3.02	3.22	3.16
				S.D.	.57	.70	.67	.77	.65	.68
				Norm Decile	8	7	8	7	5	7
		Post	43	Mean	3.53	3.25	3.28	3.10	3.39	3.34
				S.D.	.44	.55	.42	.52	.47	.42
				Norm Decile	8	8	9	7	7	9
Arizona 9	Control	Pre	10	Mean	3.84	3.60	3.59	3.71	3.75	3.63
				S.D.	.20	.32	.33	.32	.31	.26
				Norm Decile	9	9	9	9	9	9
		Post	10	Mean	3.41	3.22	3.11	3.17	3.57	3.26
				S.D.	.30	.31	.29	.31	.27	.26
				Norm Decile	8	8	8	8	9	8
Arizona 10	Control	Pre	5	Mean	3.36	3.03	3.14	3.17	3.41	3.22
				S.D.	.49	.75	.36	.45	.59	.56
				Norm Decile	7	7	8	8	8	8
		Post	9	Mean	3.49	3.28	3.04	3.07	3.14	3.18
				S.D.	.32	.31	.22	.15	.26	.18
				Norm Decile	8	8	7	7	4	8

Table 1 (cont.)

Institution Instructor	Experimental Control	Pre Post	N	Data Type	CEQ Subscales					
					General Course Attitude	Method of Instruction	Course Content	Interest Attention	Instructor	Total
Arizona 11	Control	Pre	21	Mean	3.40	3.34	3.14	3.20	3.62	3.30
				S.D.	.57	.62	.53	.67	.35	.46
				Norm Decile	8	9	8	8	9	8
		Post	14	Mean	3.11	2.72	2.91	3.00	3.34	3.01
				S.D.	.36	.52	.37	.33	.46	.34
				Norm Decile	5	4	5	6	7	6
Arizona 12	Control	Pre	16	Mean	3.10	2.51	2.79	2.82	3.34	2.88
				S.D.	.48	.75	.55	.62	.48	.47
				Norm Decile	5	2	3	5	7	4
		Post	11	Mean	2.78	2.25	2.59	2.61	2.78	2.58
				S.D.	.38	.68	.22	.42	.37	.35
				Norm Decile	1	0	1	3	0	1
Arizona 13	Control	Pre	8	Mean	3.14	2.59	2.98	2.80	3.16	2.90
				S.D.	.71	.86	.54	.60	.67	.62
				Norm Decile	5	2	6	4	5	4
		Post	11	Mean	3.38	2.80	2.91	2.92	3.25	3.02
				S.D.	.54	.87	.39	.51	.49	.49
				Norm Decile	7	5	5	6	6	6
Arizona 14	Control	Pre	23	Mean	3.32	2.98	2.74	2.98	3.19	3.00
				S.D.	.70	.65	.80	.77	.71	.75
				Norm Decile	7	6	3	6	5	5
		Post	29	Mean	3.31	2.94	2.86	3.02	3.01	2.98
				S.D.	.57	.60	.41	.57	.39	.42
				Norm Decile	7	6	4	7	3	5
Arizona 15	Control	Pre	31	Mean	3.11	2.38	2.65	2.67	2.81	2.71
				S.D.	.71	.76	.89	.80	.90	.85
				Norm Decile	5	1	1	3	1	2
		Post	30	Mean	3.06	2.68	2.68	2.73	2.86	2.80
				S.D.	.63	.64	.45	.67	.47	.47
				Norm Decile	4	3	2	4	1	3

Table 1 (cont.)

Institution Instructor	Experimental Control	Pre Post	N	Data Type	CEQ Subscales					
					General Course Attitude	Method of Instruction	Course Content	Interest Attention	Instructor	Total
Arizona 16	Control	Pre	8	Mean	3.28	3.03	2.87	3.02	3.27	3.09
				S.D.	.48	.52	.28	.43	.42	.37
				Norm Decile	7	7	4	7	6	6
		Post	10	Mean	2.94	2.73	2.74	2.70	2.95	2.79
				S.D.	.34	.57	.24	.54	.42	.33
				Norm Decile	3	4	2	3	2	3
Arizona 17	Control	Pre	10	Mean	3.57	3.11	3.38	3.32	3.62	3.32
				S.D.	.51	.68	.54	.72	.41	.50
				Norm Decile	9	7	9	9	9	9
		Post	10	Mean	3.19	2.83	3.01	3.00	3.33	3.01
				S.D.	.37	.65	.34	.50	.36	.32
				Norm Decile	6	5	7	6	7	5
Arizona 18	Control	Pre	13	Mean	3.68	3.28	3.28	3.36	3.08	3.33
				S.D.	.36	.79	.44	.37	.64	.42
				Norm Decile	9	8	9	9	3	9
		Post	20	Mean	3.46	3.32	3.20	3.23	3.25	3.29
				S.D.	.49	.44	.32	.44	.31	.34
				Norm Decile	8	9	8	8	6	8
Sheridan 1	Experimental	Pre	5	Mean	3.27	2.67	2.75	2.77	2.75	2.81
				S.D.	.60	.76	.67	.70	.71	.71
				Norm Decile	7	3	3	4	0	3
		Post	9	Mean	3.18	3.33	2.89	3.19	3.34	3.15
				S.D.	.39	.41	.18	.38	.30	.26
				Norm Decile	5	9	5	8	7	7
Sheridan 2	Experimental	Pre	16	Mean	3.06	3.20	3.14	3.05	3.20	3.10
				S.D.	.83	.80	.87	.82	.76	.82
				Norm Decile	4	8	8	7	5	7
		Post	8	Mean	3.27	3.00	3.29	3.23	3.25	3.19
				S.D.	.37	.75	.45	.38	.36	.45
				Norm Decile	6	6	9	8	6	8

Table 1 (cont.)

Institution Instructor	Experimental Control	Pre Post	N	Data Type	CEQ Subscales					
					General Course Attitude	Method of Instruction	Course Content	Interest Attention	Instructor	Total
Sheridan 3	Experimental	Pre	38	Mean	2.84	2.60	2.73	2.57	2.94	2.75
				S.D.	.73	.72	.63	.73	.71	.70
				Norm Decile	2	3	2	2	2	2
		Post	11	Mean	3.38	3.32	3.35	3.01	3.45	3.31
				S.D.	.67	.64	.45	.69	.35	.47
				Norm Decile	7	9	9	6	8	9
Sheridan 4	Experimental	Pre	22	Mean	3.10	2.59	2.70	2.78	2.89	2.83
				S.D.	.64	.68	.80	.71	.69	.73
				Norm Decile	5	2	2	4	1	3
		Post	17	Mean	3.45	3.45	3.17	3.35	3.54	3.38
				S.D.	.48	.44	.50	.61	.36	.42
				Norm Decile	8	9	8	9	9	9
Sheridan 5	Experimental	Pre	20	Mean	3.15	2.92	2.87	2.77	3.17	3.00
				S.D.	.66	.67	.74	.77	.77	.72
				Norm Decile	5	6	4	4	5	5
		Post	13	Mean	3.38	3.19	2.91	2.83	3.32	3.12
				S.D.	.74	.77	.52	.65	.72	.63
				Norm Decile	7	8	5	5	7	7
Sheridan 6	Experimental	Pre	14	Mean	3.24	3.25	2.91	2.90	3.36	3.13
				S.D.	.71	.53	.72	.83	.64	.70
				Norm Decile	6	8	5	5	7	7
		Post	32	Mean	3.51	3.35	3.03	3.18	3.58	3.31
				S.D.	.48	.57	.39	.62	.31	.39
				Norm Decile	8	9	7	8	9	9
Sheridan 7	Experimental	Pre	31	Mean	3.05	2.46	2.76	2.61	2.77	2.75
				S.D.	.73	.85	.76	.83	.82	.81
				Norm Decile	4	1	3	3	0	2
		Post	10	Mean	2.97	2.63	2.70	2.47	3.10	2.78
				S.D.	.44	.44	.20	.60	.17	.25
				Norm Decile	3	3	2	2	4	2

Table 1 (cont.)

Institution Instructor	Experimental Control	Pre Post	N	Data Type	CEQ Subscales					
					General Course Attitude	Method of Instruction	Course Content	Interest Attention	Instructor	Total
Sheridan 8	Experimental	Pre	12	Mean	3.30	2.77	2.71	2.69	2.96	2.90
				S.D.	.65	.73	.90	.90	.79	.81
				Norm Decile	7	4	2	3	2	4
		Post	11	Mean	3.27	2.92	2.85	2.85	3.15	3.01
				S.D.	.38	.64	.28	.56	.50	.40
				Norm Decile	6	6	4	5	4	6
Sheridan 9	Experimental	Pre	10	Mean	3.10	2.81	2.86	2.90	3.15	2.95
				S.D.	.44	.58	.47	.49	.53	.50
				Norm Decile	5	5	4	5	4	5
		Post	8	Mean	3.67	3.73	3.22	3.58	3.73	3.54
				S.D.	.34	.33	.41	.33	.36	.30
				Norm Decile	9	9	9	9	9	9
Sheridan 10	Experimental	Pre	28	Mean	3.31	2.70	2.94	2.64	3.17	2.90
				S.D.	.69	.75	.70	.83	.68	.77
				Norm Decile	7	3	6	3	5	4
		Post	19	Mean	3.34	2.52	3.03	2.61	3.15	2.94
				S.D.	.38	.70	.27	.65	.59	.42
				Norm Decile	7	2	7	3	4	5
Sheridan 11	Experimental	Pre	8	Mean	3.25	2.80	3.11	3.09	3.05	3.02
				S.D.	.50	.72	.51	.66	.68	.65
				Norm Decile	6	4	8	7	3	6
		Post	9	Mean	3.54	3.00	3.43	3.40	3.44	3.33
				S.D.	.61	.96	.35	.72	.34	.51
				Norm Decile	9	6	9	9	8	9
Sheridan 12	Experimental	Pre	9	Mean	3.72	3.60	3.37	3.69	3.72	3.61
				S.D.	.62	.49	.71	.47	.45	.57
				Norm Decile	9	9	9	9	9	9
		Post	12	Mean	3.56	3.17	3.13	3.18	3.35	3.27
				S.D.	.44	.61	.72	.65	.57	.56
				Norm Decile	9	8	8	8	7	8

Table 1 (cont.)

Institution Instructor	Experimental Control	Pre Post	N	Data Type	CEQ Subscales					
					General Course Attitude	Method of Instruction	Course Content	Interest Attention	Instructor	Total
Sheridan 13	Experimental	Pre	4	Mean	3.78	3.37	3.53	3.72	3.72	3.58
				S.D.	.42	.61	.72	.52	.52	.60
				Norm Decile	9	9	9	9	9	9
		Post	7	Mean	3.87	3.65	3.64	3.79	3.79	3.73
				S.D.	.15	.32	.38	.27	.21	.25
				Norm Decile	9	9	9	9	9	9
Sheridan 14	Experimental	Pre	12	Mean	3.58	3.54	3.41	3.40	3.66	3.52
				S.D.	.59	.52	.59	.66	.56	.59
				Norm Decile	9	9	9	9	9	9
		Post	4	Mean	3.90	3.50	3.71	3.75	3.72	3.70
				S.D.	.19	.44	.26	.42	.19	.24
				Norm Decile	9	9	9	9	9	9
Sheridan 15	Experimental	Pre	7	Mean	3.84	3.50	3.33	3.32	3.61	3.47
				S.D.	.37	.71	.67	.74	.53	.67
				Norm Decile	9	9	9	9	9	9
		Post	7	Mean	3.73	3.60	3.50	3.67	3.67	3.62
				S.D.	.42	.43	.44	.43	.50	.41
				Norm Decile	9	9	9	9	9	9
Sheridan 16	Experimental	Pre	5	Mean	3.80	3.60	3.40	3.77	3.75	3.61
				S.D.	.41	.63	.87	.42	.44	.66
				Norm Decile	9	9	9	9	9	9
		Post	7	Mean	3.54	3.14	3.45	3.41	3.29	3.31
				S.D.	.41	.33	.40	.61	.54	.31
				Norm Decile	9	8	9	9	6	9
Sheridan 1	Control	Pre	13	Mean	3.45	3.13	2.81	3.29	3.47	3.20
				S.D.	.61	.75	.89	.68	.68	.76
				Norm Decile	8	7	3	8	8	8
		Post	52	Mean	3.28	2.88	2.87	2.89	3.23	3.02
				S.D.	.54	.79	.42	.64	.49	.48
				Norm Decile	7	5	4	5	6	6

Table 1 (cont.)

Institution Instructor	Experimental Control	Pre Post	N	Data Type	CEQ Subscales					
					General Course Attitude	Method of Instruction	Course Content	Interest Attention	Instructor	Total
Sheridan 2	Control	Pre	8	Mean	3.56	2.91	3.27	3.23	3.27	3.24
				S.D.	.50	.95	.70	.68	.60	.71
				Norm Decile	9	6	9	8	6	8
		Post	8	Mean	3.70	3.31	3.34	3.63	3.61	3.48
				S.D.	.33	.82	.54	.42	.53	.50
				Norm Decile	9	9	9	9	9	9

Inspection of the data in Table 1 indicated that the two-person-control group from Sheridan College was not a representative sample. The entire Sheridan sample was then deleted and the analysis focused on only the University of Arizona data.

The ANOVA results for the two subscales (Course Content and Instructor) that yielded significant F-ratios are presented in Table 2. The results presented in Table 2 indicate that there was a significant interaction between the pre-post and experimental-control student ratings of the Course Content and Instructor subscales. Upon inspection of the plot of the significant interactions (see Figures 1 and 2) it was obvious that simple main effects tests of the interactions were called for in order to determine whether or not significant mean rating differences had occurred between the pre and post measures.

Table 2

ANOVA Results for the Course Content and

Instructor Subscales of the CEQ

Source	df	SS	MS	F	Probability
Course Content					
Pre-Post	1, 40	.05606	.05606	3.0889	.0865
Pre-Post x Experimental-Control	1, 40	.13395	.13395	7.3809	.0097
Subjects x Pre-Post	40	.72594	.01815		
Instructor					
Pre-Post	1, 40	.01263	.01263	.6009	.4431
Pre-Post x Experimental-Control	1, 40	.16663	.16663	7.9159	.0076
Subjects x Pre-Post	40	.84199	.02105		

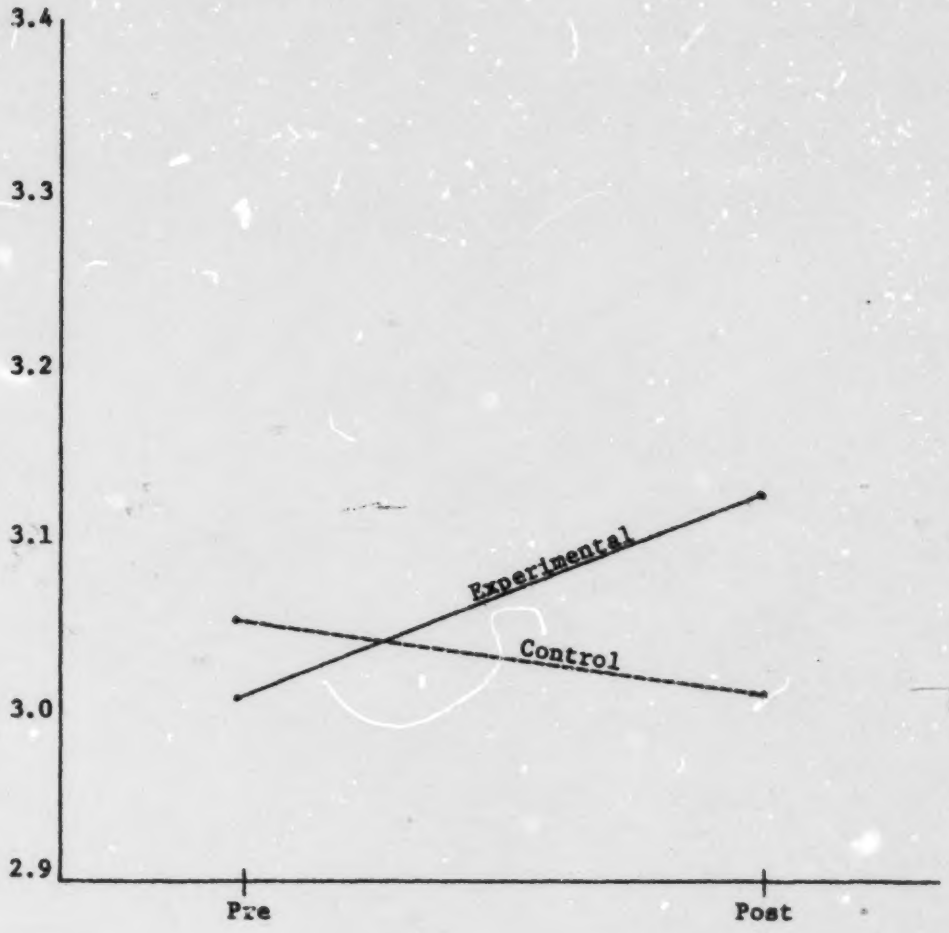

Figure 1 : The Pre-Post by Experimental-Control Interaction for the Course Content Subscale

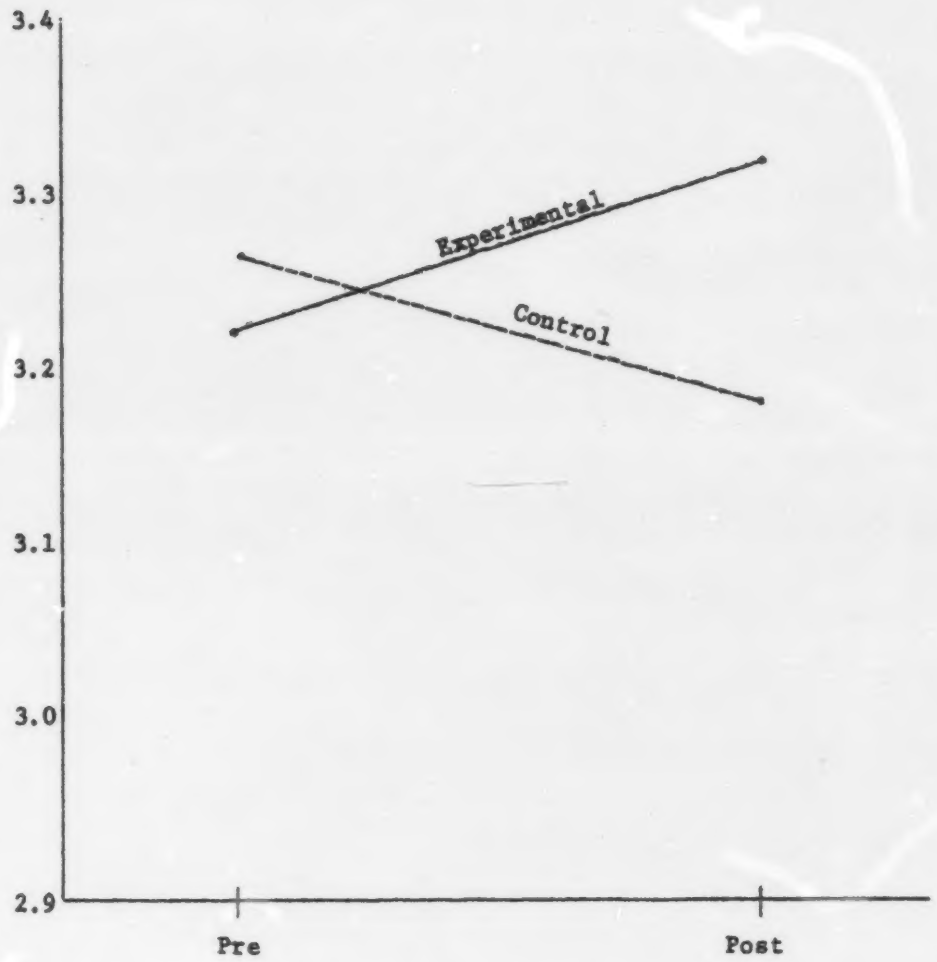

Figure 2. The Pre-Post by Experimental-Control Interaction for the Instructor Subscale

The results of those simple main effects tests (presented in Tables 3 and 4) indicate that there was a significant increase in the pre-post measures for the experimental group on both subscales, but no significant decrease in the pre-post measures for the control group. This suggests that the CEQ results and the individual conferences had an effect on the instructor for both the Course Content and Instructor subscales.

Table 3

Simple Main Effects Tests for the Pre-Post x Experimental-Control Interaction on the Course Content Subscale of the CEQ

Source	df	t	Probability
Experimental			
Pre-Post	40	3.085	$p < .01$
Control			
Pre-Post	40	.911	$p < .40$
Pre			
Experimental-Control	40	.726	$p < .50$
Post			
Experimental-Control	40	1.690	$p < .10$

Table 4

Simple Main Effects Tests for the Pre-Post x Experimental-Control Interaction on the Instructor Subscale of the CEQ

Source	df	t	Probability
Experimental			
Pre-Post	40	2.625	$p < .02$
Control			
Pre-Post	40	1.653	$p < .20$
Pre			
Experimental-Control	40	.604	$p > .50$
Post			
Experimental-Control	40	1.760	$p < .10$

An inspection of the norm decile shifts for the two subscales (presented in Tables 5 and 6) simply reinforces the data presented in Figures 1 and 2. The average norm decile increase or decrease on the Course Content subscale for the experimental group was 1.13 compared to -.28 for the control group and on the Instructor subscale, the experimental group was 1.17 compared to -.67 for the control group. The range of norm decile increase or decrease on the Course Content subscale for the experimental group is from -2 to 4 compared to from -3 to 3 for the control group and on the Instructor subscale, the experimental group was from -4 to 5 compared to from -7 to 3 for the control group.

Table 5

Norm Decile Changes for the Course Content Subscale

Instructor	Experimental			Control		
	Pre	Post	Increase Decrease	Pre	Post	Increase Decrease
			Arizona			
1	5	9	4	5	6	1
2	5	9	4	6	9	3
3	9	9	0	7	6	-1
4	8	9	1	7	6	-1
5	8	9	1	7	9	2
6	8	9	1	9	7	-2
7	7	9	2	5	8	3
8	2	6	4	8	9	1
9	5	9	4	9	8	-1
10	6	7	1	8	7	-1
11	6	8	2	8	5	-3
12	-	-	-	3	1	-2
13	-	-	-	6	5	-1
14	4	3	-1	3	4	1
15	7	9	2	1	2	1
16	-	-	-	4	2	-2
17	4	5	1	9	7	-2
18	2	6	4	9	8	-1
19	5	3	-2	-	-	-
20	8	9	1	-	-	-
21	8	9	1	-	-	-
22	8	8	0	-	-	-
23	3	1	-2	-	-	-
24	8	8	0	-	-	-
28	8	8	0	-	-	-
33	6	5	-1	-	-	-
34	7	7	0	-	-	-
Mean	6.13	7.25	1.13	6.33	6.06	-.28

Table 6

Norm Decile Changes for the Instructor Subscale

Instructor	Experimental			Control		
	Pre	Post	Increase Decrease	Pre	Post	Increase Decrease
Arizona						
1	2	7	5	0	0	0
2	4	8	4	1	4	3
3	6	8	2	5	4	-1
4	5	8	3	5	4	-1
5	7	8	1	8	9	1
6	5	8	3	9	8	-1
7	7	9	2	6	8	2
8	6	8	2	5	7	2
9	6	8	2	9	9	0
10	5	6	1	8	4	-4
11	7	7	0	9	7	-2
12	-	-	-	7	0	-7
13	-	-	-	5	6	1
14	5	1	-4	5	3	-2
15	5	8	3	1	1	0
16	-	-	-	6	2	-4
17	2	5	3	9	7	-2
18	4	8	4	3	6	3
19	3	0	-3	-	-	-
20	7	8	1	-	-	-
21	7	8	1	-	-	-
22	7	7	0	-	-	-
23	1	0	-1	-	-	-
24	7	5	-2	-	-	-
28	7	7	0	-	-	-
33	6	6	0	-	-	-
34	7	8	1	-	-	-
Mean	5.33	6.50	1.17	5.61	4.94	-.67

Discussion

The results of the present study indicate that providing CEQ computerized results as well as conducting individual consulting sessions with each instructor who received a normative rating indicating areas in need of improvement, helped the instructors to improve their ratings a semester or year later in the same course. This indicates that instructors who are provided with such information and the opportunity to discuss and explore possible ways of rectifying their areas of instructional weakness can improve their instruction if they choose to do so.

The results of the present study further suggest that instructors (when provided with the appropriate information and an opportunity to interact with someone concerning that information) can significantly improve their course content and their personal classroom techniques during one academic year. It should also be noted that the magnitude of the improvement in each of the above areas was not the same and, therefore, one should not expect improvement in one area to necessarily result in improvement in any of the others without some purposeful effort on the part of the instructor.

Even though the interaction effects indicated that a larger difference between pre-post measures existed for the experimental versus the control group, there were no significant differences between the control and experimental groups on any of the six dependent measures. One possible explanation for the lack of significant differences is the way the control group was actually selected. If the instructors could have been assigned randomly to the experimental and control groups, significant differences might have been possible.

The present study confirms the anecdotal evidence as well as the one study by Braunstein, Klein and Pachla (1973) that feedback to college instructors can lead to significant improvement in their instruction. However, it should be pointed out that all the studies cited basically looked at the effect of feedback within a semester or term and not between semesters as was the case with the present study. Also, no attempt was made in those studies to provide instructors with the opportunity to discuss the results of student evaluations with an independent resource person who could help them diagnose their instructional problems.

It appears, therefore, that the combination of feedback and personal consultation on student evaluations of course and instructor provide a better framework for encouraging an instructor to use such results for potential improvement when compared to feedback of results alone.

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Appendix A

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RESULTS FOR THE OBJECTIVE ITEMS ON THE CEQ QUESTIONNAIRE FORM 66

20140 ALEAMONI LAURE EDPSY 490 SECTION H ENROL=0005 FALL 1971 03620J

SEX

FEMALE	MALE	OMIT
0.20	0.20	0.60

MAJOR-MINOR

MAJOR	MINOR	OTHER	OMIT
0.40	0.20	0.40	0.00

COURSE OPTION

REQ	ELECT	OMIT
0.40	0.40	0.20

PASS-FAIL

YES	NO	OMIT
0.00	0.60	0.40

STATUS

FRESH	SOPH	JR	SR	GRAD	OTHER	OMIT
0.00	0.00	0.00	0.00	1.00	0.00	0.00

EXPECTED GRADE

A	B	C	D	E	OMIT
0.60	0.40	0.00	0.00	0.00	0.00

COURSE GRADE

A	B	C	D	E	OMIT
0.80	0.20	0.00	0.00	0.00	0.00

INSTRUCTOR GRADE

A	B	C	D	E	OMIT
1.00	0.00	0.00	0.00	0.00	0.00

ITEM	SA	A	D	SD	OMIT	REST	MEAN	S.D.	DECL	0123456789
1.	0.00	0.00	0.40	0.60	0.00	SD	3.60	0.55	9	*
2.	0.00	0.00	0.40	0.60	0.00	SD	3.60	0.55	7	*
3.	0.60	0.40	0.00	0.00	0.00	SA	3.60	0.55	9	*
4.	0.40	0.60	0.00	0.00	0.00	SA	3.40	0.55	9	*
5.	0.80	0.20	0.00	0.00	0.00	SA	3.80	0.45	8	*
6.	0.60	0.40	0.00	0.00	0.00	SA	3.60	0.55	9	*
7.	0.80	0.20	0.00	0.00	0.00	SA	3.80	0.45	9	*
8.	0.00	0.20	0.40	0.40	0.00	SD	3.20	0.84	8	*
9.	0.20	0.80	0.00	0.00	0.00	SA	3.20	0.45	8	*
10.	0.00	0.00	0.40	0.60	0.00	SD	3.60	0.55	9	*
11.	0.00	0.00	0.20	0.80	0.00	SD	3.80	0.45	9	*
12.	0.20	0.80	0.00	0.00	0.00	SA	3.20	0.45	7	*
13.	0.60	0.40	0.00	0.00	0.00	SA	3.60	0.55	9	*
14.	0.00	0.00	0.40	0.60	0.00	SD	3.60	0.55	9	*
15.	0.00	0.00	0.20	0.80	0.00	SD	3.80	0.45	9	*
16.	0.80	0.20	0.00	0.00	0.00	SA	3.80	0.45	9	*

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17.	0.00	0.00	0.20	0.80	0.00	SD	3.80	0.45	9		*
18.	1.00	0.00	0.00	0.00	0.00	SA	4.00	0.00	9		*
19.	0.20	0.80	0.00	0.00	0.00	SA	3.20	0.45	6	*	
20.	0.60	0.40	0.00	0.00	0.00	SA	3.60	0.55	9		*
21.	0.40	0.40	0.20	0.00	0.00	SA	3.20	0.84	8		*
22.	0.40	0.60	0.00	0.00	0.00	SA	3.40	0.55	9		*
23.	0.20	0.00	0.20	0.60	0.00	SD	3.20	1.30	6	*	
24.	0.00	0.00	0.20	0.80	0.00	SD	3.80	0.45	9		*
25.	0.40	0.60	0.00	0.00	0.00	SA	3.40	0.55	8		*
26.	0.00	0.00	1.00	0.00	0.00	SD	3.00	0.00	8		*
27.	0.60	0.40	0.00	0.00	0.00	SA	3.60	0.55	9		*
28.	0.00	0.20	0.80	0.00	0.00	SD	2.80	0.45	1	*	
29.	0.00	0.00	0.00	1.00	0.00	SD	4.00	0.00	9		*
30.	0.00	0.80	0.20	0.00	0.00	SA	2.80	0.45	5	*	
31.	0.00	0.00	0.00	1.00	0.00	SD	4.00	0.00	9		*
32.	0.00	0.40	0.60	0.00	0.00	SD	2.60	0.55	1	*	
33.	0.00	0.00	0.40	0.60	0.00	SD	3.60	0.55	9		*
34.	0.00	0.00	0.20	0.80	0.00	SD	3.80	0.45	9		*
35.	0.40	0.60	0.00	0.00	0.00	SA	3.40	0.55	8		*
36.	0.60	0.40	0.00	0.00	0.00	SA	3.60	0.55	9		*
37.	0.00	0.00	0.40	0.60	0.00	SD	3.60	0.55	9		*
38.	0.00	0.00	0.60	0.40	0.00	SD	3.40	0.55	8		*
39.	0.00	0.40	0.60	0.00	0.00	SD	2.60	0.55	6	*	
40.	0.40	0.60	0.00	0.00	0.00	SA	3.40	0.55	9		*
41.	0.00	0.20	0.60	0.20	0.00	SD	3.00	0.71	6	*	
42.	1.00	0.00	0.00	0.00	0.00	SA	4.00	0.00	9		*
43.	0.00	0.00	0.80	0.20	0.00	SD	3.20	0.45	8		*
44.	0.00	0.20	0.40	0.40	0.00	SD	3.20	0.84	6	*	
45.	0.00	0.00	0.60	0.40	0.00	SD	3.40	0.55	9		*
46.	0.00	0.00	0.20	0.80	0.00	SD	3.80	0.45	9		*
47.	0.80	0.20	0.00	0.00	0.00	SA	3.80	0.45	9		*
48.	0.00	0.00	0.40	0.60	0.00	SD	3.60	0.55	9		*
49.	0.40	0.60	0.00	0.00	0.00	SA	3.40	0.55	8		*
50.	0.60	0.40	0.00	0.00	0.00	SA	3.60	0.55	9		*

--SUBSCORE--	ITEMS	RESP	MEAN	S.D.	REL	RANK LEVEL	INSTI	COLL	OVER-ALL
GENERAL ATTITUDE	8	1.00	3.65	0.48	0.90	NONE	8	9	NONE	9
METHOD	8	1.00	3.55	0.55	0.85	NONE	9	9	NONE	9
CONTENT	8	1.00	3.07	0.57	0.66	NONE	5	7	NONE	7
INTEREST	8	1.00	3.55	0.50	0.93	NONE	9	9	NONE	9
INSTRUCTOR	8	1.00	3.67	0.62	0.00	NONE	9	9	NONE	9
SPECIFIC ITEMS	10	1.00	3.40	0.64	0.09	NONE	9	9	NONE	9
TOTAL	50	1.00	3.48	0.60	0.93	NONE	9	9	NONE	9

Appendix B

ILLINOIS COURSE EVALUATION QUESTIONNAIRE — FORM 66

Measurement and Research Division, Office of Instructional Resources, UNIVERSITY OF ILLINOIS © By Richard E. Spencer, 1965

IDENTIFICATION INFORMATION

STUDENT NUMBER

EXPECTED GRADE IN THIS COURSE

ARE YOU: MALE / FEMALE

IS THIS COURSE: REQUIRED / ELECTIVE

TODAY'S DATE: MO / DAY / YR

CAMPUS LOCATION: URBANA / CHI.CIR. / MED.CEN. / EXTENSION / OTHER

COURSE CODE

MARK YOUR COLLEGE: AGRIC. / COMM. & BA / EDUC. / ENGIN. / F & APP.ARTS / HOME EC / JOURN. COMM. / LAS / LAW / PHYS.ED. / MEDICINE / NURSING / PHARMACY / DENTISTRY / VET.MED. / OTHER

ARE YOU: FRESHMAN / SOPHOMORE / JUNIOR / SENIOR / GRAD. / OTHER

DIRECTIONS:
1. PRINT INSTRUCTOR'S LAST NAME HERE_____
2. COMPLETE IDENTIFICATION INFORMATION TO THE RIGHT.
3. RESPOND TO THE ITEMS PRESENTED FRANKLY AND COMPLETELY-ONE RESPONSE PER ITEM. (SEE SAMPLE MARK AND RESPONSE CODE)
4. USE PENCIL ONLY-DO NOT USE PEN, BALL POINT OR INK OF ANY KIND.

1	I learn more when other teaching methods are used.	26	Some things were not explained very well.	51	76
2	It was a waste of time.	27	The way in which this course was taught results in better student learning.	52	77
3	Overall, the course was good.	28	The course material was too difficult.	53	78
4	The textbook was very good.	29	One of my poorest courses.	54	79
5	The instructor seemed to be interested in students as persons.	30	Material in the course was easy to follow.	55	80
6	More courses should be taught this way.	31	The instructor seemed to consider teaching as a chore or routine activity.	56	81
7	The course held my interest.	32	More outside reading is necessary.	57	82
8	I would have preferred another method of teaching in this course.	33	Course material was poorly organized.	58	83
9	It was easy to remain attentive.	34	Course was not very helpful.	59	84
10	The instructor did not synthesize, integrate or summarize effectively.	35	It was quite interesting.	60	85
11	Not much was gained by taking this course.	36	I think that the course was taught quite well.	61	86
12	The instructor encouraged the development of new viewpoints and appreciations.	37	I would prefer a different method of instruction.	62	87
13	The course material seemed worthwhile.	38	The pace of the course was too slow.	63	88
14	It was difficult to remain attentive.	39	At times I was confused.	64	89
15	Instructor did not review promptly and in such a way that students could understand their weaknesses.	40	Excellent course content.	65	90
16	Homework assignments were helpful in understanding the course.	41	The examinations were too difficult.	66	91
17	There was not enough student participation for this type of course.	42	Generally, the course was well organized.	67	92
18	The instructor had a thorough knowledge of his subject matter.	43	Ideas and concepts were developed too rapidly.	68	93
19	The content of the course was good.	44	The content of the course was too elementary.	69	94
20	The course increased my general knowledge.	45	Some days I was not very interested in this course.	70	95
21	The types of test questions used were good.	46	It was quite boring.	71	96
22	Held my attention throughout the course.	47	The instructor exhibited professional dignity and bearing in the classroom.	72	97
23	The demands of the students were not considered by the instructor.	48	Another method of instruction should have been employed.	73	98
24	Uninteresting course.	49	The course was quite useful.	74	99
25	It was a very worthwhile course.	50	I would take another course that was taught this way.	75	100

SAMPLE MARKS:

USE PENCIL ONLY

a) SA ▮ D SD
b) SA A ▮ SD
c) ▮ A D SD
d) SA A D ▮

RESPONSE CODE:

MARK	SA	IF YOU STRONGLY AGREE WITH THE ITEM
MARK	A	IF YOU AGREE MODERATELY WITH THE ITEM
MARK	D	IF YOU DISAGREE MODERATELY WITH THE ITEM
MARK	SD	IF YOU STRONGLY DISAGREE WITH THE ITEM

IF PART II OR III IS TO BE USED MARK HERE ⟶

COMPLETE SECTIONS BELOW ACCORDING TO YOUR INSTRUCTOR'S DIRECTIONS:

OPTIONAL PART II ITEMS 51-75

OPTIONAL PART III ITEMS 76-100

OPTICAL SCANNING FORMS by OPTICAL SCANNING CORPORATION

FORM 73 ILLINOIS COURSE EVALUATION QUESTIONAIRE CEQ

Measurement and Research Division, Office of Instructional Resources

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MARK:

- SA — IF YOU STRONGLY AGREE WITH THE ITEM
- A — IF YOU AGREE MODERATELY WITH THE ITEM
- D — IF YOU DISAGREE MODERATELY WITH THE ITEM
- SD — IF YOU STRONGLY DISAGREE WITH THE ITEM

1. MARK ONLY ONE RESPONSE PER ITEM USING PENCIL ONLY.
2. ERASE CHANGED ANSWERS CLEANLY AND COMPLETELY.

SAMPLE MARKS

1 COURSE CODE

2 ARE YOU

3 YOUR EXPECTED GRADE IN THIS COURSE

4 ARE YOU TAKING THIS COURSE FOR PASS-FAIL

5 SPECIAL CODE 1 2 3 4 5 6 7 8 9

6 THIS COURSE IS WITHIN YOUR

7 YOU ARE

8 SEMESTER

9 RATE THE FOLLOWING COURSE CONTENT MAJOR INSTRUCTOR COURSE IN GENERAL

(Number)

(Name)

BEGIN OPTIONAL ITEM SECTION I

1 I would take another course that was taught this way.	24	SA A D SD	47 SA A D SD
2 The instructor seemed to be interested in students as persons.	25	SA A D SD	48 SA A D SD
3 I would have preferred another method of teaching in this course.	26	SA A D SD	49 SA A D SD
4 It was easy to remain attentive.	27	SA A D SD	50 SA A D SD
5 The instructor did NOT synthesize, integrate or summarize effectively.	28	SA A D SD	51 SA A D SD
6 NOT much was gained by taking this course.	29	SA A D SD	52 SA A D SD
7 The instructor encouraged the development of new viewpoints and appreciations.	30	SA A D SD	53 SA A D SD
8 I learn more when other teaching methods are used.	31	SA A D SD	54 SA A D SD
9 The course material seemed worthwhile.	32	SA A D SD	55 SA A D SD
10 The instructor was excellent.	33	SA A D SD	56 SA A D SD
11 The instructor demonstrated a thorough knowledge of his subject matter.	34	SA A D SD	57 SA A D SD
12 I would rather NOT take another course from this instructor.	35	SA A D SD	58 SA A D SD
13 It was a very worthwhile course.	36	SA A D SD	59 SA A D SD
14 Some things were NOT explained very well.	37	SA A D SD	60 SA A D SD
15 The course material was too difficult.	38	SA A D SD	61 SA A D SD
16 One of my poorest courses.	39	SA A D SD	62 SA A D SD
17 The instructor seemed to consider teaching as a chore or routine activity.	40	SA A D SD	63 SA A D SD
18 It was quite interesting.	41	SA A D SD	64 SA A D SD
19 I think that the course was taught quite well.	42	SA A D SD	65 SA A D SD
20 Excellent course content.	43	SA A D SD	66 SA A D SD
21 Some days I was NOT very interested in this course.	44	SA A D SD	67 SA A D SD
22 It was quite boring.	45	SA A D SD	68 SA A D SD
23 Overall, the course was good.	46	SA A D SD	69 SA A D SD

PLEASE PRINT: THE MAJOR INSTRUCTOR OF THIS COURSE IS

THE NAME AND NUMBER OF THIS COURSE IS

OPTIONAL ITEM SECTION II

70 A B C D E 71 A B C D E 72 A B C D E 73 A B C D E 74 A B C D E 75 A B C D E 76 A B C D E 77 A B C D E

78 A B C D E 79 A B C D E 80 A B C D E 81 A B C D E 82 A B C D E 83 A B C D E 84 A B C D E 85 A B C D E

DC 30-546B OPTICAL SCANNING CORPORATION

PLEASE FILL OUT THE OTHER SIDE

C E Q

PLEASE USE THIS SIDE OF THE FORM FOR YOUR PERSONAL COMMENTS ON TEACHER EFFECTIVENESS AND GENERAL COURSE VALUE--THEN TURN IT OVER AND ANSWER THE OBJECTIVE QUESTIONS ON THE OTHER SIDE, USING PENCIL ONLY. YOUR INSTRUCTOR WILL NOT SEE YOUR COMPLETED EVALUATION UNTIL AFTER FINAL GRADES ARE IN FOR YOUR COURSE.

COURSE CONTENT

PLEASE GIVE YOUR COMMENTS ON THE COURSE CONTENT, SUBJECT MATTER, AND ANY PARTICULAR RELEVANCE THIS COURSE HAS HAD TO YOUR AREA OF STUDY.

INSTRUCTORS

WRITE THE NAME OF YOUR PRINCIPAL INSTRUCTOR _____ T.A. _____

WHAT ARE YOUR GENERAL COMMENTS ABOUT THE INSTRUCTOR(S) IN THIS COURSE?

INSTRUCTIONAL OBJECTIVES

WERE THE INSTRUCTIONAL OBJECTIVES CLEARLY STATED FOR THIS COURSE? YES _____ NO _____ COMMENT:

PAPERS AND HOMEWORK

COMMENT ON THE VALUE OF BOOKS, HOMEWORK, AND PAPERS (IF ANY) IN THIS COURSE.

EXAMS

COMMENT ON THE EXAMS (QUIZZES, PRACTICALS) AS TO DIFFICULTY, FAIRNESS, ETC.

GENERAL

1. WHAT IMPROVEMENTS IN THIS COURSE WOULD YOU SUGGEST?

2. PLEASE GIVE YOUR THOUGHTFUL EVALUATION OF THIS COURSE WITH COMMENTS. ARE YOU SATISFIED WITH WHAT YOU GOT OUT OF THIS COURSE? DO YOU CONSIDER IT A VALUABLE EDUCATIONAL EXPERIENCE? SIMPLY A MEANS OF PASSING A REQUIREMENT? OR A DISAPPOINTMENT? PLEASE COMMENT.

PLEASE FILL OUT THE OTHER SIDE

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